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09/833,546	04/11/2001	Ralph A. Mosher	D/A0584	4763
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100 Clinton Ave. S.			1774	
Rochester, NY 14644			DATE MAILED: 02/21/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/833,546

**Applicant(s)**

MOSHER ET AL.

**Examiner**

Tamra L. Dicus

**Art Unit**

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-26 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12-05-05</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

The finality of the prior Office Action is withdrawn. Prosecution is reopened. The IDS is acknowledged.

***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 3-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No.

6,602,156 to Schlueter, Jr. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are to an endless seamed flexible belt comprising a substrate and a seam comprising alcohol-soluble polyamide, whereas the Schlueter reference claims a endless seamed flexible belt comprising a polyimide substrate and alcohol-soluble polyamide and a seam comprising alcohol-soluble polyamide adhesive. See patented claim 1 to the structure as in instant claim 3 and patented claim 21. Therefore the present claims are broader in scope and encompasses that which is claimed by the Schlueter, Jr. reference.

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3. Claims 1, 3-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9-17 of U.S. Patent No.

5,997,974 to Schlueter, Jr. in view of U.S. Patent No. 6,602,156 to Schlueter, Jr.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are to an endless seamed flexible belt comprising a substrate and a seam comprising alcohol-soluble polyamide, whereas the Schlueter '974 reference claims a endless seamed flexible belt comprising a substrate and a seam comprising a conductive bonding material in the gap of the seam. The meaning of conductive bonding material is defined at col. 6, lines 9-22 and col. 12, lines 3-20 and is an adhesive filled in the gap comprising polyamide adhesive.

4. While Schlueter '974 does not state the polyamide adhesive is alcohol soluble, Schlueter '156 reference claims a endless seamed flexible belt comprising a polyimide substrate and alcohol-soluble polyamide seam comprising alcohol-soluble polyamide adhesive. See patented claim 1 to the structure as in instant claim 3 and patented claim 21 (Schlueter '156). Thus, it would have been obvious to one having ordinary skill in the art to have modified the conductive bonding material of Schlueter '974 to use the alcohol soluble adhesive of Schlueter '156 because Schlueter '156 claims the same adhesive structure used in the seam of a belt providing electrostatic transfer of toner (col. 9, lines 30-40, patented claim 1 and patented claim 21 of Schlueter '156). Therefore the present claims are broader in scope and encompasses that which is claimed by the Schlueter, Jr. references.

5. Claims 1, 3-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,4, 6, 8-11, 13-18

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and 21-25 of copending Application No. 10/014,452. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are to an endless seamed flexible belt comprising a substrate and a seam comprising alcohol-soluble polyamide, whereas the instant application '452 claims a endless seamed flexible belt comprising a polyimide substrate and alcohol-soluble polyamide and a seam comprising alcohol-soluble polyamide. See patented claim 10. Therefore the present claims are broader in scope and encompasses that which is claimed by the '452 application

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Claim Objections***

6. Claim 4 is objected to because of the following informalities: "methylene methoxy" appears incorrectly named, as it should be "methyl methoxy". Appropriate correction is required.

7. Claims 19-20 are objected to because of the following informalities: "101 to about 1013 ohms-cm" and "109 to about 1011 ohm-cm" appears incorrect in the claims of the previous filed brief in the Appendix. However, in the claims of the last amendment 4/11/01, the claims recite " $10^1$  to about  $10^{13}$  ohms-cm" and " $10^9$  to about  $10^{11}$  ohm-cm". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 7-11, 14, 17, and 19-25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,997,974 to Schlueter, Jr. as evidenced by USPN 6,906,470 to Fuller et al.

Schlueter teaches an endless seamed puzzle cut patterned electrostatographic belt having a substrate of polyamide or polyimide and a seam comprising a conductive bonding material in the gap of the seam (11, FIG. 1 and associated text, col. 6, lines 40-50, col. 9, line 65-col. 10, line 13). The plurality of mutually mating elements are in the form of a puzzle cut pattern, which further comprise a first projection and second receptacle which are curved, forming a joint between first and second ends. See Figures 1-9.

Schlueter teaches a belt of polyimide (instant claim 17) at col. 6, line 45.

Schlueter teaches at col. 6, lines 9-25 the conductive bonding material is an adhesive used to fill the kerf, voids in the seam and is a crosslinked adhesive listing typical polyamide adhesives used. The adhesive further comprises electrically conductive metal oxide fillers such as indium tin oxide, SnO, and carbon black and quaternary ammonium salts (col. 6, lines 9-22, col. 9, line 65-col. 10, line 13, col. 11, lines 24-25, and col. 12, lines 3-20) (instant claims 7-11, 14, and 25).

While Schlueter does not state the polyamide adhesive is alcohol soluble, Fuller at col. 14, line 9 teaches that all polyamides are alcohol soluble. Clearly, the polyamide conductive adhesive of Schlueter is alcohol soluble as Fuller shows.

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Schlueter does not state the volume resistivity as claimed (instant claims 19-20). However, it would be inherently expected that the volume resistivity be the same because the same adhesive is employed. Instant claims 1, 7-11, 14, 17, and 19-25 are met.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 4,297,477 to Nakata et al.

Parker teaches an endless seamed flexible intermediate belt comprising a first and second end, where each comprises plural mutually mating elements, joined in an interlocking relationship, forming a seam. See col. 8, lines 20-60, especially lines 45-58. The belt comprises a substrate of a polyimide, polyamide, or polycarbonate and the seam comprises an adhesive strength enhancing material also of polyamide in the form of a strip that melts and fills in the gaps within the seam to form a bonded joint. See col. 2, lines 25-30, col. 5, lines 11-20, col. 9, lines 20-38 and col. 11, lines 10-20. The plurality of mutually mating elements are in the form of a puzzle cut pattern, which further comprise a first projection and second receptacle which are curved, forming a joint between first and second ends. See Figures 1-11, col. 5, lines 45-65. Parker teaches the

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volume resistivity of  $10^8$  to  $10^{11}$  ohms-cm at col. 5, lines 24-27 (meeting instant claims 17, 19-24).

Parker does not explicitly state the adhesive polyamide further comprising an alcohol soluble polyamide (instant claim 1).

Nakata teaches polyamides such as alcohol soluble polyamides have excellent strength and wear resistance and are useful as adhesives and strength enhancers (col. 1, lines 5-30, col. 4, lines 15-36).

One having ordinary skill in the art would look to the teachings of Nakata for its adhesive properties in <sup>n</sup>bonding the joints of Parker with alcohol soluble polyamides since it provides excellent strength and wear resistance (col. 1, lines 5-30, col. 4, lines 15-36 of Nakata).

11. Claims 1, 3-4, 7, 9, 14, 17, and 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 6,004,709 to Renfer et al.

Parker teaches an endless seamed flexible intermediate belt comprising a first and second end, where each comprises plural mutually mating elements, joined in an interlocking relationship, forming a seam. See col. 8, lines 20-60, especially lines 45-58. The belt comprises a substrate of a polyimide, polyamide, or polycarbonate and the seam comprises an adhesive strength enhancing material also of polyamide in the form of a strip that melts and fills in the gaps within the seam to form a bonded joint. See col. 2, lines 25-30, col. 5, lines 11-20, col. 9, lines 20-38 and col. 11, lines 10-20. The plurality of mutually mating elements are in the form of a puzzle cut pattern, which further comprise a first projection and second receptacle which are curved, forming a joint



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between first and second ends. See Figures 1-11, col. 5, lines 45-65. Parker teaches the volume resistivity of  $10^8$  to  $10^{11}$  ohms-cm at col. 5, lines 24-27 (meeting instant claims 17, 19-24).

Parker does not explicitly state the adhesive polyamide further comprising an alcohol soluble polyamide (instant claim 1). Parker does not explicitly state the adhesive polyamide further comprising an alcohol soluble polyamide, consisting of methoxy or methylene methoxy groups, an electrically conductive filler such as carbon fillers, or is crosslinked (instant claims 3-4, 7, 9, 14, and 25).

Renfer teaches reacting any alcohol soluble polyamide to obtain allyloxymethylated polyamides including methoxy and methylene methoxy groups useful as hot melt adhesives or overcoat layers (col. 8, lines 10-55) because they are easy to cross link (col. 11, lines 19-35) (instant claims 3-4, 7, 9) and have the advantage of having a long pot life (col. 2, lines 35-40, col. 13, lines 15-35, col. 21, lines 30-40). The cross linked polyamide (instant claim 14) further comprises conventional fillers such as carbon, metallic powder, and the like or an organic electrically conducting material (col. 13, lines 30-65).

It would have been obvious to one having ordinary skill in the art to have modified the combination to include polyamides having methoxy and methylene methoxy groups because Renfer teaches they are useful as hot melt adhesives and are easy to cross link providing the advantage of a long pot life and to include a cross linked polyamide and conventional fillers such as carbon, metallic powder, and the like or an organic electrically conducting material because it enhances rigidity, toughness, and hardness (col. 8, lines 10-55, col. 11, lines 19-35, col. 13, lines 25-65 of Renfer).

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12. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,997,974 to Schlueter, Jr. as evidenced by USPN 6,906,470 to Fuller et al. and further in view of USPN 6,004,709 to Renfer et al.

Schlueter essentially teaches the claimed invention.

Schlueter does not explicitly state the alcohol soluble polyamide adhesive further comprising methoxy or methylene methoxy groups (instant claims 3-4).

As aforementioned, Schlueter teaches the polyamide adhesive contains electrically conductive materials.

Renfer teaches reacting any alcohol soluble polyamide to obtain allyloxymethylated polyamides including methoxy and methylene methoxy groups useful as hot melt adhesives or overcoat layers (col. 8, lines 10-55) because they are easy to cross link (col. 11, lines 19-35) (instant claims 3-4, 7, 9) and have the advantage of having a long pot life (col. 2, lines 35-40, col. 13, lines 15-35, col. 21, lines 30-40). The cross linked polyamide further comprises conventional fillers such as carbon, metallic powder, and the like or an organic electrically conducting material (col. 13, lines 30-65).

It would have been obvious to one having ordinary skill in the art to have modified Schlueter to include polyamides having methoxy and methylene methoxy groups because Renfer teaches any polyamide may be reacted to obtain methylene methoxy groups and they are useful as hot melt adhesives and are easy to cross link further providing the advantage of a long pot life in electrophotographic imaging (col. 8, lines 10-55, col. 11, lines 19-35, col. 13, lines 25-65 of Renfer).

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13. Claims 13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,997,974 to Schlueter, Jr. as evidenced by USPN 6,906,470 to Fuller et al. and further in view of USPN 6,906,470 to Fuller et al.

Schlueter essentially teaches the claimed invention.

As previously stated, Schlueter teaches using crosslinked adhesive listing polyamide in the seam with electrically conductive adhesives by using conductive fillers like carbon black, metal oxides, and charge transfer molecules and further suggests conductivity of the seam is very important for electrostatographic imaging members and employing a conductive adhesive is a method to achieve conductivity (col. 12, lines 1-20).

Schlueter does not teach the polyamides further comprising a crosslinker such as oxalic acid, an electrically conductive filler such as fluorinated carbon, metal oxide fillers such as titanium oxide, or is a charge transporting molecule including bis(dihydroxy diethylamino) triphenyl methane and mixtures thereof as in claim 13 (instant claims 13, 15-16).

Fuller discloses all polyamides are alcohol soluble (col. 14, line 8) used in electrophotographic coatings. The cross linkable alcohol soluble polyamide also includes a crosslinker such as oxalic acid to crosslink the polyamide and oxidize the dihydroxy amine (col. 19, lines 39-43), and employs equivalent electrically conductive fillers such as quaternary ammonium salt, carbon black and fluorinated carbon, metal oxide fillers such as titanium oxide, and a charge transporting molecule including bis(dihydroxy diethylamino) triphenyl methane and mixtures thereof to produce conductivity (col. 19, lines 1-50).

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As suggested by Schlueter, crosslinked conductive polyamide adhesive in the seam is employed and conductivity in the seam is very important for electrostatographic imaging members (col. 12, lines 1-20 of Schlueter), thus it would have been obvious to one having ordinary skill in the art to have modified the combination to include a crosslinker such as oxalic acid, because Fuller discloses all polyamides are alcohol soluble, where the cross linkable alcohol soluble polyamide also includes a crosslinker such as oxalic acid in order to crosslink the polyamide and oxidize the dihydroxy amine used in electrostaographic imaging. It would have been obvious to include an electrically conductive filler such as fluorinated carbon, metal oxide fillers such as titanium oxide, and a charge transporting molecule including bis(dihydroxy diethylamino) triphenyl methane and mixtures thereof as instantly claimed because Fuller discloses equivalent electrically conductive fillers such as quaternary ammonium salt, carbon black and fluorinated carbon, metal oxide fillers such as titanium oxide, and a charge transporting molecule including bis(dihydroxy diethylamino) triphenyl methane and mixtures thereof in order to produce conductivity used in electrostaographic imaging (col. 14, lines 1-8, col. 19, lines 1-50 of Fuller).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,997,974 to Schlueter, Jr. as evidenced by USPN 6,906,470 to Fuller et al. and further in view of USPN 5,663,283 to Sakakibara et al.

Schlueter essentially teaches the claimed invention.

Schlueter teaches conductive fillers including carbon black, but Schlueter does not teach a conductive filler of polypyrrole or polyaniline (instant claim 12).

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However, Sakakibara teaches it is known to use polypyrrole, polyaniline, carbon black, and tin oxide as electrically conductive fillers for electrophotographic members at col. 6, lines 20-64.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include polyaniline polyimide, polypyrrole, carbon black, and tin oxide are equivalent used as electrically conductive fillers in electrophotographic members (col. 6, lines 20-64 of Sakakibara).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,997,974 to Schlueter, Jr. as evidenced by USPN 6,906,470 to Fuller et al. and further in view of USPN 6,387,465 to Yuan et al.

Schlueter essentially teaches the claimed invention.

Schlueter does not teach a substrate of polyaniline polyimide (instant claim 18).

Yuan teaches suitable substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart the desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50).

It would have been obvious to one having ordinary skill in the art to have modified the Schlueter to include a substrate of polyaniline polyimide because Yuan teaches suitable equivalent substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart a desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50 of Yuan).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 4,297,477 to Nakata et al. or optionally in

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view of USPN 6,004,709 to Renfer et al. and further in view of USPN 6,387,465 to Yuan et al.

The combination is relied upon above.

Parker teaches polycarbonate, polyimide, and polyamid substrates, however, the combination does not teach or a substrate of polyaniline polyimide (instant claim 18).

Yuan teaches suitable substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart the desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50).

It would have been obvious to one having ordinary skill in the art to have modified the combination to include a substrate of polyaniline polyimide because Yuan teaches suitable equivalent substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart a desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50 of Yuan).

Claims 1, 17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 4,856,781 to Shishido et al. and further in view of USPN 5,112,708 to Okunuki et al.

Parker teaches an endless seamed flexible intermediate belt comprising a first and second end, where each comprises plural mutually mating elements, joined in an interlocking relationship, forming a seam. See col. 8, lines 20-60, especially lines 45-58. The belt comprises a substrate of a polyimide, polyamide, or polycarbonate and the seam comprises an adhesive strength enhancing material also of polyamide in the form of a strip that melts and fills in the gaps within the seam to form a bonded joint. See col. 2, lines 25-30, col. 5, lines 11-20, col. 9, lines 20-38 and col. 11, lines 10-20. The plurality

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of mutually mating elements are in the form of a puzzle cut pattern, which further comprise a first projection and second receptacle which are curved, forming a joint between first and second ends. See Figures 1-11, col. 5, lines 45-65. Parker teaches the volume resistivity of  $10^8$  to  $10^{11}$  ohms-cm at col. 5, lines 24-27 (meeting instant claims 17, 19-24).

Parker does not explicitly state the adhesive polyamide further comprising an alcohol soluble polyamide (instant claim 1).

Shishido teaches Luckamide 5003 nylon adhesive used as a reinforcing agent to fill gaps between the seam to firmly connect them (col. 11, lines 5-20).

Parker nor Shishido teach Luckamide 5003 is alcohol soluble.

Okunuki teaches Luckamide 5003 is dissolved in methanol (alcohol) and is thus considered alcohol soluble (col. 10, lines 45-50).

One having ordinary skill in the art would look to the teachings of Shishido for its adhesive properties in bonding the joints of Parker with alcohol soluble polyamides since it provides excellent strength in connecting gaps in between seams as taught by Shishido and evidenced by Okunuki (col. 11, lines 5-20 of Shishido and col. 10, lines 45-50 of Okunuki).

Claims 3-4, 7, 9, 14, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 4,856,781 to Shishido et al. and further in view of USPN 5,112,708 to Okunuki et al. and further in view of USPN 6,004,709 to Renfer et al.

Parker, Shishido, and Okunuki are relied upon above.

Parker does not explicitly state the adhesive polyamide further comprising an

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alcohol soluble polyamide, consisting of methoxy or methylene methoxy groups, an electrically conductive filler such as carbon fillers, or is crosslinked (3-4, 7, 9, 14, and 25).

Renfer teaches reacting any alcohol soluble polyamide to obtain allyloxymethylated polyamides including methoxy and methylene methoxy groups useful as hot melt adhesives or overcoat layers (col. 8, lines 10-55) because they are easy to cross link (col. 11, lines 19-35) (claims 3-4, 7, 9). The cross linked polyamide (instant claim 14) further comprises conventional fillers such as carbon, metallic powder, and the like or an organic electrically conducting material (col. 13, lines 30-65).

It would have been obvious to one having ordinary skill in the art to have modified the combination to include polyamides having methoxy and methylene methoxy groups because Renfer teaches they are useful as hot melt adhesives and are easy to cross link and to include a cross linked polyamide and conventional fillers such as carbon, metallic powder, and the like or an organic electrically conducting material because it enhances rigidity, toughness, and hardness (col. 8, lines 10-55, col. 11, lines 19-35, col. 13, lines 25-65 of Renfer).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,721,032 to Parker et al. in view of USPN 4,856,781 to Shishido et al. and further in view of USPN 5,112,708 to Okunuki et al. and further in view of USPN 6,387,465 to Yuan et al.

The combination is relied upon above.

The combination does not teach or a substrate of polyaniline polyimide (instant claim 18).



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Yuan teaches suitable substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart the desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50).

It would have been obvious to one having ordinary skill in the art to have modified the combination to include a substrate of polyaniline polyimide because Yuan teaches suitable equivalent substrates of polycarbonate, polyimide, and polyaniline polyimide used in seamed belts that impart the desired electrical resistivity (col. 8, lines 1-15, col. 9, lines 44-50 of Yuan).

#### ***Allowable Subject Matter***

14. Claims 5-6 are allowed. The applied prior art does not teach the structure of claim 5.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamra L. Dicus  
Examiner  
Art Unit 1774

January 23, 2006



JACQUELINE M. STONE  
DIRECTOR  
TECHNOLOGY CENTER 1700



RENA DYE  
SUPERVISORY PATENT EXAMINER

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